TOOLS FOR SCALING – BY FRANCIS MUTHONI

This presented was based on the desire to demonstrate geospatial tools to help in spatial targeting of technologies, thereby responding to the questions where and when does a given technology fit?

In relation to use of tools for scaling, three presentations were made, related to;

1. Monitoring rainfall trends over southern and eastern Africa.
2. Mapping land degradation hotspots in Tanzania.
3. Spatial targeting of conservation agriculture practices.

In making the presentation, Francis acknowledged the fact that agriculture in the region is mostly rainfed. As a result, it is important to show how rainfall is changing. Conservation Agriculture (CA), gave better yield when projected into drier scenarios versus when projected into wet conditions, and this was tied to the excess water that could collect in CA systems with crop residues. Land degradation is recognized as a major challenge in the region. Sustainable land management must prioritize hotspots.

Discussion

1. It was observed that such efforts could cut on the number of trials requiring to be undertaken.
2. There was need to standardize historical data across the years.
3. Do your projections agree with those of the IPCC?

Answer: Yes.

1. Are you using NDVI?

Answer: Yes.

1. Can these projections related to land degradation feed into the works of governmental environmental departments.

Answer: Yes. Infact the departments could benefit from the high resolution employed by these works under the Africa RISING project.

1. What should we do to publish the work listed as (iii) in this presentation?

Answer: We need more time.

1. How many rain gauge stations were used in relation to presentation (i)?
2. You used annual rainfall. Did you try daily rainfall?
3. Which Machine Learning Model did you use?
4. Is the 13-year data you used adequate for achieving accurate predictions with Machine Learning?

Answer: Data is not a limitation, rather, the coverage.